

# Surface Water Drainage

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## **Why are surface water drainage controls important?**

Rainfall that lands on hard surfaces such as concrete, asphalt, or gravel does not soak into the ground. Surface water is rainfall that does not infiltrate into the ground or evaporate into the air and as a result flows over land. The intent of the adopted surface water drainage standards is to provide for control of the flow and quality of the surface water run-off.

Certain projects, due to size, scope, or nature of development are required to control surface water drainage that flows over impervious surfaces. Surface water flows can be controlled in several ways including infiltrating the water into the ground, the use of Best Management Practices, and/or engineered systems.

## **What are impervious surfaces?**

Hard surfaces including walkways, driveways, parking areas, and roofs that prevent rain water from soaking (infiltrating) into the ground are called impervious surfaces. Total impervious surface is the sum of all impervious surfaces on one site. The amount of new impervious surface a project proposes determines what level of drainage review is required.

## **What is a best management practice (BMP)?**

BMPs are practices, structures, or other methods that are used to prevent or lessen impacts to downstream drainage such as erosion or flooding.

## **What is infiltration?**

Infiltration is the movement of water from the surface to the subsoil. How fast the rain infiltrates depends on what is on the surface and on what kinds of soils are underneath the surface. Usually a geotechnical engineer evaluates the soils and determines the infiltration rate. On certain, specific projects, a certified septic designer can determine infiltration rates.

## **How is surface water flow control defined?**

Surface water flow control uses BMPs, such as infiltration, to slow or retain surface water onsite to prevent downstream damage such as erosion or flooding.

## **What is water quality treatment?**

Water quality treatment BMP's remove pollutants resulting from water running off of impervious surfaces such as driveways, parking areas, chemical storage areas, and roofs.

## **What is drainage review?**

Drainage review assesses the effects of a proposed development on the surface water drainage on the site and the surrounding areas. Once the effects are assessed, the drainage review determines which BMP's will help minimize onsite and downstream drainage problems.

**Business Hours: M – F 8:00 a.m. to 5 p.m. ♦ Permit Processing Hours: M – F 8 a.m. to 4:00 p.m.**

*Note: This handout is for informational use only and is not to be substituted for the Shoreline Development Code.* 2/2014